Dialogic

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Dialogic® Distributed Signaling Interface Components

Host Licensing User Guide

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Copyright and Legal Notice

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Revision History

Issue	Date	Part Number	Description
1	08-Aug-03		
2	30-Jun-04		Added process for obtaining emergency Backup License and re-activating original license.
3	24-Nov-08		Introduced Dialogic® DSI Protocol Stack branding
4	19-Jan-10		Trial mode reduced to one hour.

Note: The current version of this guide can be found at:
http://www.dialogic.com/support/helpweb/signaling

1   Introduction

Dialogic® Distributed Signaling Interface (DSI) Components are range of software, boards, and signaling servers for the realization of SS7 signaling nodes. Depending on the product, Dialogic® DSI Protocol Stacks must each be licensed for use either using a hardware license button fitted to the board or by a host-based License File. In either case, the license should be ordered through your normal supply channel prior to using the product.

This document relates to host-based licenses and details how the **License Certificate** delivered to the customer should be used to activate Dialogic DSI Protocol Stacks on the user's own target machine under either the Windows®, Linux or Solaris operating systems.

Each computer that runs DSI Protocol Stacks must have its own valid run-time license.

For trial purposes, a mode of operation is supported that allows DSI Protocol Stacks to run for up to one hour without requiring a run-time license.This document details the process for obtaining a **License Certificate**, nominating the machine on which you wish to run the software (the **Target Machine**), activating the license and installing the **License File** on your target machine. It also describes the procedure to follow in the event of failure of the **Target Machine** for which the run-time license was activated.

The current versions of all DSI Protocol Stacks are available at: http://www.dialogic.com/support/helpweb/signaling

The binaries are all protected so that they will only run once a valid **License File** has been installed on the **Target Machine**, or in **Trial Mode,** for a period of one hour. The license file is specific to a single target machine and will only allow the DSI Protocol Stack to run on the intended machine.

1.1   Applicability

This document applies to the licensing of host-based protocol software and board-based protocol stacks which are licensed on the host.

Users needing to install software licenses on a Dialogic® DSI Signaling Server should refer instead to the User Manual for that product.

2 How to License your Target Machine

2.1 Place your Order

First, decide what needs to be licensed on your **Target Machine**.

This Host Licensing procedure applies to host-based licenses for Dialogic® DSI Protocol Stacks where the software is licensed on the Linux, Solaris or Windows® host machine. Examples of these products are as follows:

SS7SBHSTMTP3   - Host-based MTP3
SS7SBHSTISUP   - Host-based ISUP
SS7SBMTP2D1   - Host-license for Dialogic® Diva® Media Board based
                                  MTP2 (one MTP2 signaling link)

Full details of available products can be obtained through your normal sales channel.

Most Dialogic DSI Protocol Stacks are available to run on Windows®, Linux and Solaris operating systems. It is not necessary to specify the operating system at the time of placing the order.

When you place your order, you do not need to know any details of the machine on which the software will run.

Your order will ship through the normal supply channels; you will receive a **License Certificate**. This contains the full license terms for using DSI Protocol Stacks and a unique **License ID** that you will need to use in order to activate the license.

2.2 Determine the Host ID

When you receive your License Certificate, you should first read the full terms of the software license. If you are not prepared to accept the terms of the agreement, then you must contact your sales channel for a refund and you must not activate the software license.

If you are in agreement with the software license terms, the next stage is to identify the computer on which you wish to run the DSI Protocol Stacks.

It is necessary to obtain a **Host ID** for the target machine. This is obtained by running the protocol software binary on the target machine using the –v command line option. In addition to version and usage information, a 'Licensing **Host ID**' is returned. For example, the Dialogic® DSI MTP3 Layer produces output similar to that shown below:

SS7 MTP3 V6.01
Copyright (C) 1991-2008 Dialogic Corporation. All Rights Reserved.
This product requires a valid license file.
The Licensing Host ID for this machine is: 83102115.

Make a note of the **Host ID**; you will need to use it to activate the software license.

2.3   Activate the License

Once you have the **License ID** and the **Host ID** you are ready to 'Activate' the license.

License Activation is the process of submitting details of your specific **Target Machine** (i.e., the **Host ID**) and your choice of operating system so that a **License File** can be generated and sent to you for installation on the **Target Machine**.

The process is web-based and the **License File** will be sent to you by email.

Use the SS7 License Activation Request link shown on the bottom of the first page of your **License Certificate**. You will be asked to provide the following basic information about yourself:

> Name
> Company
> Country
> Email address (this will be used to send your License File)

You will be asked for the following information about your Target machine:

Operating System
Host ID
User Machine Identification (any string you wish to use to refer to your machine)

You must then list the **License ID** (taken from the **License Certificate**) for each protocol that you wish to license on that **Target Machine**.

Once all this information has been entered, you should submit the form (an example of a valid license application form is shown below). You will receive e-mail confirmation that your request has been submitted, and, under normal circumstances, you will receive your **License File** by email within a few minutes.

Note: Although you can include multiple protocol License IDs on a single form, it is essential that you submit a separate form for each Target machine.

✓Indicates required fields.

Contact Information

First Name ✓	Firstname	
Last Name ✓	Lastname	
Company ✓	Companyname	
Country ✓	United Kingdom	▼
Email ✓	email@example.com	
Confirm Email ✓	email@example.com	

Select Operating System

For Signaling Servers, select "Signaling Server"

Operating System ✓	Windows	▼

Enter Host or Unit ID

Obtained as described above

Host / Unit ID # ✓	001125427A20

User Machine Identification

Any user supplied text to reference this machine

Machine Name ✓	Test System

License ID # of software option(s) to activate on the target machine.

As found on the License Certificate(s)

License #1 ✓	ISUP-385-3401
License #2	MAP-138-3966
License #3	TCAP-196-0175
License #4	SCCP-CO-753-5291
License #5	MTP3-008-1677
License #6	
License #7	
License #8	
License #9	
License #10	

[Submit] [Reset]

Figure 1. Example of valid license application form

2.4   Installing the License File

The **License File** is a simple text file, and it will be delivered by e-mail. The contents of the file will be similar to the following:

```
FEATURE MTP3_WIN_D dialogic 1.000 permanent uncounted \

HOSTID=0008e3306c21 SIGN="0077 465B ABD3 4D62 9A94 DEEB 243E \

CA00 2618 2DFD FDF5 32C0 8428 A81B A2F5"


FEATURE ISUP_WIN_D dialogic 1.000 permanent uncounted \

HOSTID=0008e3306c21 SIGN="00EA 5006 7433 DA4D 5710 A032 51C8 \

6000 004D 7D60 893A 3B92 E659 147C A307"
```

The license file should be copied to an appropriate directory on the Target Machine's hard disk. The choice of directory and file name is arbitrary; however; the license file must retain the extension '.lic'.

The DSI Protocol Stack should then be run in test mode such that the license file is read correctly. This is done by setting the –Lt option on the command line. For example, under the Solaris operating system, if the license files were stored in a directory c:\license, the command line for a test run would be as follows:

```
mtp_sol –Lt –Lpc:\license
```

In response to this command line a response similar to the one shown below would be returned:

Searching path: '../../../LIC/MTP3/DIA_LICS' for a valid Vendor 1 license file token 'MTP3_SOL_D'.
License file is valid.

Check that the "License file is valid" output appears. If it does not the license file is either not correctly installed or is for a different machine.

Permanent licenses do not have an expiry date however Backup licences expire after 30 days.

2.5   Run DSI Protocol Stacks

Assuming the License file is valid, you are now able to run and use the DSI Protocol Stacks.

Remember that you need to specify the path to the license file using the –Lp command line argument.

Typically, the DSI Protocol Stack is started by gctload as a result of a FORK_PROCESS command in the system.txt file. For example,

```
...
FORK_PROCESS mtp_sol.exe -Lpc:\license
...
```

3 Failure of the Target Machine

The **License Files** are specific to the Dialogic® DSI Protocol Stack you have licensed and the **Target Machine** on which you are running it. Therefore, in the event of failure of your Target Machine, your License Files will not be valid to run on a replacement or modified system.

In such circumstances, you must request, through your normal sales or support channel, authorization to re-activate the License. Once authorized, you will be able to repeat the license activation process (as described in section 2) with the original **License ID** but with the **Host ID** of the replacement or repaired system.

In order to allow you to get a replacement system up and running in a short period of time, you have the opportunity to obtain an emergency **Backup License File** through a fully automated web-based procedure. Such a Backup License File is time-limited but will allow you to run the Dialogic DSI Protocol Stack on a replacement or modified system while your request for a re-activation of the original license is processed.

The process for obtaining a **Backup License File** is almost identical to that of activating a new License (see 2.3). The only difference with the initial license activation is that, on the web based activation form, the **License IDs** have to be **prefixed** with the following 4 characters: **BAK-**. For example, if the license ID on the certificate is TCAP-123-1234, the license ID specified on the web form for the corresponding backup license would be **BAK-**TCAP-123-1234. The **Host ID** to specify is that of the replacement system to which you need to transfer your licenses. Upon submission, the Backup License File for the replacement system will be sent to the email address you specified during this new activation.

The **Backup License File** will allow you to run the DSI Protocol Stack Software for **30 days**. After this period, it will be impossible to restart the software. During this period you are expected to seek authorization to re-activate the original license, perform the new activation and install the resulting **License File** in place of the Backup License File. No interruption of the running software is needed for this operation.

Each license activation allows you to obtain **one** single **Backup License File**. When you re-activate a license, this new activation will also entitle you to one backup activation. Therefore, once you have obtained a backup license, it is very important to **re-activate the original license** for the final replacement system, even when the original machine for which the license was first activated could be repaired without affecting the Host ID. Having a properly activated license for the system will allow you to obtain another Backup License File in the event of another failure of the system. This would not be possible without a new activation of the original license.

4   Trial Mode

For trial or development purposes, the software also supports a mode of operation in which it will operate without requiring a run-time license. The Software will run for a one hour period, after which it will automatically stop running.

Trial Mode is enabled by starting the protocol module with the −t option on the command line. For example, in order to start the ISUP module in trial mode using a FORK_PROCESS command in system.txt on a Windows® system:

```
...
FORK_PROCESS isp_nt.exe -t
...
```

When each Dialogic® DSI Protocol Stack is started in trial mode, a message similar to the following is sent to the console:

```
SS7 ISUP started in trial mode.
This binary will terminate after one hour.
```

After one hour, the binary terminates and a message similar to the following is sent to the console:

```
SS7 ISUP trial mode binary terminated.
```

Once the DSI Protocol Stack has stopped running, the SS7 software environment can be stopped and restarted. The DSI Protocol Stack will then be able to run for a further hour.

5 Solving Issues

If you experience issues, check the following:

Ensure that the HOSTID entry in your License File is the same as returned by running the Dialogic® DSI Protocol Stack using the –v command line option. If not, then the License File is for a different machine.

Ensure the license file has a .lic extension.

Ensure you are correctly specifying the path to the License File using the -Lp command line option.

If the path to the License File contains spaces, make sure that the parameter is specified using quotes. For example:

```
...
FORK_PROCESS isp_nt.exe "-Lpc:\license directory"
...
```

Use the –Lt command line option to test whether a valid license is located.

Ensure that for backup and trial license the expiration date specified in the license file has not passed.

If these steps do not address the issue, contact your normal support channel for assistance.